

Tyr-Pro-Trp-Thr (SEQ ID NO: 28).

98. The method of claim 97, comprising stem cells with a stem cell proliferation stimulating amount of Phe-Pro-His-Phe-Asp-Leu-Ser-His-Gly-Ser-Ala-Gln-Val-Cys (SEQ ID NO: 1).

99. The method of claim 97, comprising contacting stem cells with a stem cell proliferation stimulating amount of Cys-Phe-Pro-His-Phe-Asp-Leu-Ser-His-Gly-Ser-Ala-Gln-Val-Cys (SEQ ID NO: 2) wherein the two Cys residues form a disulfide bond.--

REMARKS

Reconsideration is requested.

Claims 1-46 and 53-90, have been canceled, with prejudice.

Claims 91-99 have been added. Support for the new claims may be found throughout the specification, including, for example, page 16, lines 21-22. No new matter has been added.

Claims 47-52 and 91-99 are pending.

The requirements indicated in ¶¶2 and 3 of page 2 of the Office Action dated November 24, 1999 (Paper No. 14), have been satisfied by the Amendment of March 13, 2000, with the attachments thereto. The Examiner is requested to contact the undersigned, however, if anything

An English translation of the noted Russian document SU 1561261 is attached. As explained in the parent Application No. 08/316,424, SU 161655 relates to a medicine

particularly to the processes involved in the purifications of bioactive compounds from mammalian tissues. The goal of the work was to increase the activity of the bioactive compounds and to simplify the purification process. Erythroblasts were separated from the spleens of mice, preinjected with phenylhydrazine. They were cultivated for not less than 24-48 h at 37°C. Cells were then pelleted by centrifugation, the supernatant (Conditioned medium - CM) being ultrafiltrated, and then subjected to gel-chromatography (SEPHADEX G-10), the elution fraction was collected with M.v. 0.5-2.0 Kd. The activity of bioactive compounds increased 400 fold in comparison with a prototype, using a much simplified process.

The attached PTO 1449 Form includes a further listing of these documents and the Examiner is requested to acknowledge her consideration of the same by initialing and returning a copy of the attached PTO 1449 Form, pursuant to MPEP §609.

Claims 47 and 48 have been amended above and are believed to be complete and responsive to the Examiner's comments in ¶9 of page 3 of Paper No. 14. The Examiner is requested to contact the undersigned, however, if anything further is required in this regard.

The Section 112, second paragraph, rejection of claims 47-52 is obviated by the above. Claim 47 has been amended to further define INPROL to advance prosecution. Claim 48 has been amended to delete the objected "and/or" term, to advance prosecution. Claim 50 has been amended to insert the definition of the previously used terms. Withdrawal of the Section 112, second paragraph, rejection of claims 47-52 is requested.

The Section 102 rejection of claims 47-49 and 51 over Petrov (U.S. Patent No.

of the following distinguishing comments

The applicants respectfully submit that the claims are directed to a method of stimulating stem cell proliferation. The specification and claims define stem cells and distinguishes stem cells from progenitor cells as follows.

"Progenitor cells are able to differentiate into only one or two lineages ... while stem cells ... can generate multiple lineages and/or other stem cells." (Specification, page 2, lines 4-7).

As seen from the above-quoted passage from the specification, cells which can generate only mature lineages are not stem cells. The usage of the term "stem cells", as distinct from progenitor cells, can also be seen in the specification on page 5, lines 7-9. Petrov teaches stimulating the proliferation of B-lymphocytes. B-lymphocytes can generate only mature antibody-producing plasma cells and cannot generate other B-lymphocytes. Accordingly, B-lymphocytes are progenitor cells and not stem cells. Thus, Petrov does not teach or suggest stimulating the proliferation of stem cells.

The applicants note that the definition of "stem cell" presented in the rejection of Paper No. 14 is inconsistent with the definition of the same provided in the specification and is incorrect. The Examiner defines "stem cell" as follows:

"The term 'stem cells' are [sic] interpreted as being cells capable of long term culture as defined in the specification on page 63, lines 17 and 18." (Paper No. 14, para. 17)

Contrary to the above-quoted passage from the rejection, however, many cells capable of long term culture are neither stem cells nor progenitor cells. The passage cited above actually

(Specification, page 63, lines 17-18). There is no basis in the specification for asserting that any

cell capable of long term culture is a stem cell, regardless of its ability to generate mature lineages or other stem cells.

The claimed invention is not anticipated or obvious in view of Petrov and withdrawal of the Section 102 rejection of claims 47-49 and 51 over the same is requested.

The applicants acknowledge, with appreciation, the allowance of the subject matter of claims 50 and 52. See, page 4 of Paper No. 14. The applicants submit that the pending claims are patentable and a Notice of Allowance is requested.

Respectfully submitted,

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By: _____



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